

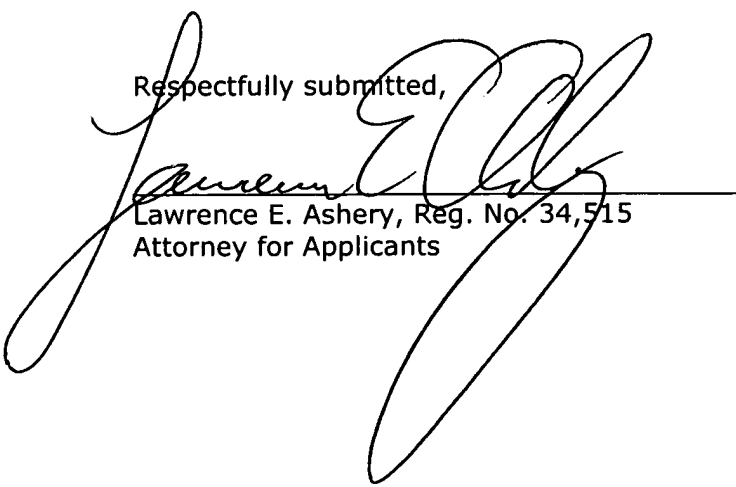
Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

ABSTRACT

In the environment of a communication area ~~(5)~~ including a SDM-compatible mobile station ~~(2)~~ for space division multiplex transmission and a SDM-incompatible mobile station ~~(3)~~ not compatible with space division multiplex transmission, a base station ~~(1)~~ having a plurality of antennas and capable of adaptively changing directivity performs allocation of a mobile station which simultaneously performs space division multiplex transmission (SDM) and space division multiplex access (SDMA) by using a predetermined space division multiplex transmission evaluation criterion and a space division multi access evaluation criterion. By using this radio communication method, it is possible to use the spatial degree of freedom at its maximum and provide a radio communication system having an improved communication capacity.

Respectfully submitted,


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LEA/dmw
Attachment: Abstract
Dated: February 16, 2005

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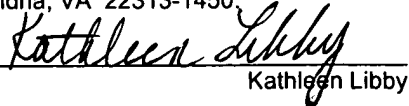
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MAT-8669US

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ABSTRACT

In the environment of a communication area including a SDM-compatible mobile station for space division multiplex transmission and a SDM-incompatible mobile station not compatible with space division multiplex transmission, a base station having a plurality of antennas and capable of adaptively changing directivity performs allocation of a mobile station which simultaneously performs space division multiplex transmission (SDM) and space division multiplex access (SDMA) by using a predetermined space division multiplex transmission evaluation criterion and a space division multi access evaluation criterion. By using this radio communication method, it is possible to use the spatial degree of freedom at its maximum and provide a radio communication system having an improved communication capacity.